



NASA-JSC and Cardiodynamics Team to Offer Clearer Picture of Heart Health

Cardiodynamics and NASA-JSC Team to Develop Better Diagnosis System for High Blood Pressure

Cardiodynamics, which develops noninvasive hemodynamic (the study of blood flow) solutions to aid clinical assessment, diagnosis, and treatment of blood pressure and flow, turned to NASA's SBIR grant program to fund development of the BioZ System. The BioZ System enables physicians to rapidly and accurately analyze patient blood flow status and provide appropriate therapies and early cardiovascular treatments.

NASA Helps Cardiodynamics Develop System that Improves Blood Pressure Management by 35% Doctors use the BioZ System to identify key indicators of heart health, leading to preventative and early treatment therapies for patient blood pressure and other properties in a less costly, non-invasive way – all in real-time. The development of this blood monitoring system lead to the ability for doctors to quickly detect, assess and recommend a course of treatment. This early detection and treatment is critical in treatment heart health. Cardiodynamics announced the system in 1985, became cash-flow positive in 2002 and announced their successful portable BioZ System in 1997.

In March of 2006, the online publication Hypertension reported the results of a recent study that showed that the BioZ System improved the blood pressure management of patients by 35%. Cardiodynamics also holds two patents for the BioZ hardware and disposable sensors.

Cardiodynamics recently announced several articles published highlighting recent trials and results:

- Publication of the Company's multi-center, randomized trial called CONTROL (Consideration Of Noninvasive Hemodynamic Monitoring To Target

Reduction Of Blood Pressure Levels) in Hypertension, an American Heart Association journal, demonstrating more than double blood pressure control as compared to traditional care;

- Publication of Cleveland Clinic's ED-IMPACT trial, which demonstrated that use of BioZ ICG data resulted in change in treatment 39% of the time and change in diagnosis 13% of the time in patients presenting with shortness of breath, in Academic Emergency Medicine, a leading emergency medicine journal;
- Publication of the Company's PREDICT (Prospective Evaluation and Identification of Decompensation by ICG Test) study in the Journal of the American College of Cardiology (JACC), the leading cardiology journal and the official journal of the American College of Cardiology (ACC) demonstrating BioZ ICG variables to be the most powerful predictor, versus standard clinical variables, of short-term heart failure emergency department visits and hospitalizations.

Benefit of BioZ System

With the help of NASA-JSC's SBIR grant, Cardiodynamics was able to develop a procedure which has shown tremendous benefit over traditional blood pressure detection and treatment systems. The BioZ System provides an easy-to-use, non-invasive, cost effective alternative to the Pulmonary Artery (Swan-Ganz™) Catheter for monitoring cardiac function in government facilities.

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